

Discovery of the sugarcane thrips, *Fulmekiola serrata*, in sugarcane fields in Southern Florida

Felipe N. Soto-Adames
Florida Department of Agriculture and Consumer Service
Division of Plant Industry
Gainesville, FL



Timeline of Discovery

- **January 27** received e-mail from Julien Beuzelin (UF/IFAS, Belle Glade) requesting information about possible involvement of thrips on injured sugarcane leaves
- **January 31** received specimens
- **February 2** specimens identified as the sugarcane thrips, *Fulmekiola serrata*

Sugarcane Thrips Identification

- **Living adults look black to the naked eye**
- **Mature larvae are yellow**



Sugarcane Thrips Identification

- In alcohol they are light brown



Female



Male

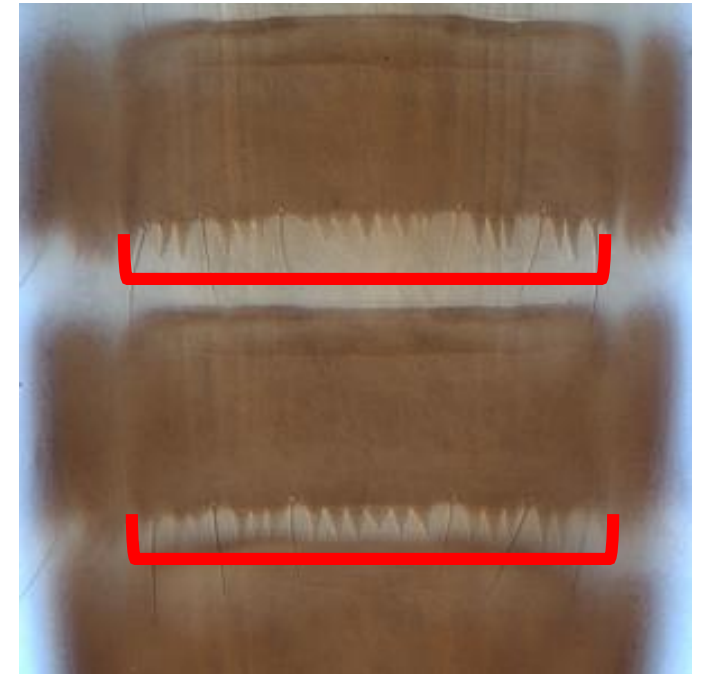
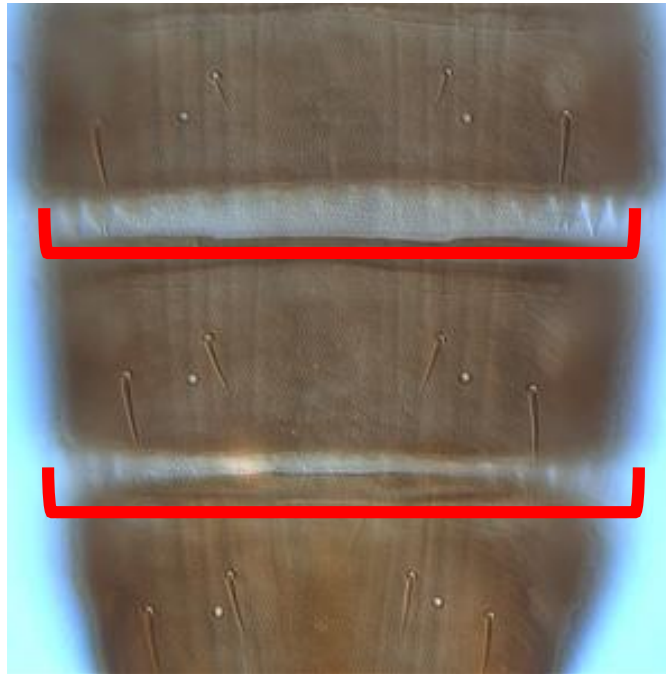
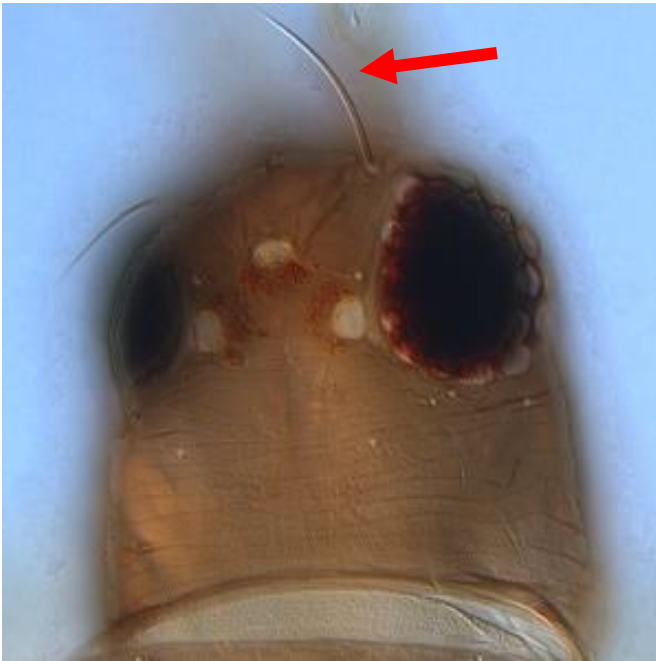
Sugarcane Thrips Identification

- Antennal Segments 3-4 light colored



Sugarcane Thrips Identification

- Long Pre-Ocellar Seta



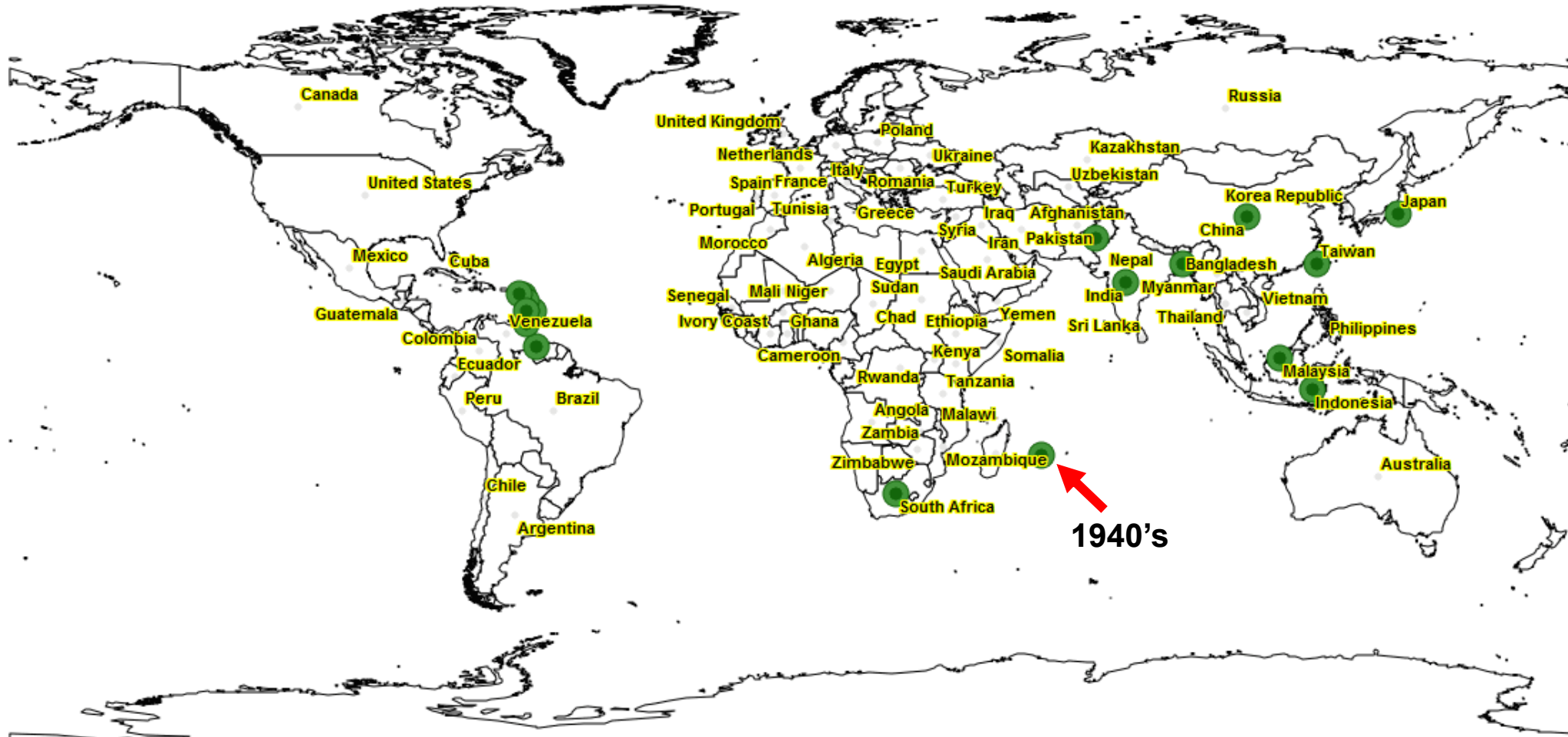
- Spines on Posterior Margin of Abdominal Segments 1-8

Sugarcane Thrips World Distribution

- **Originally described from Indonesia**

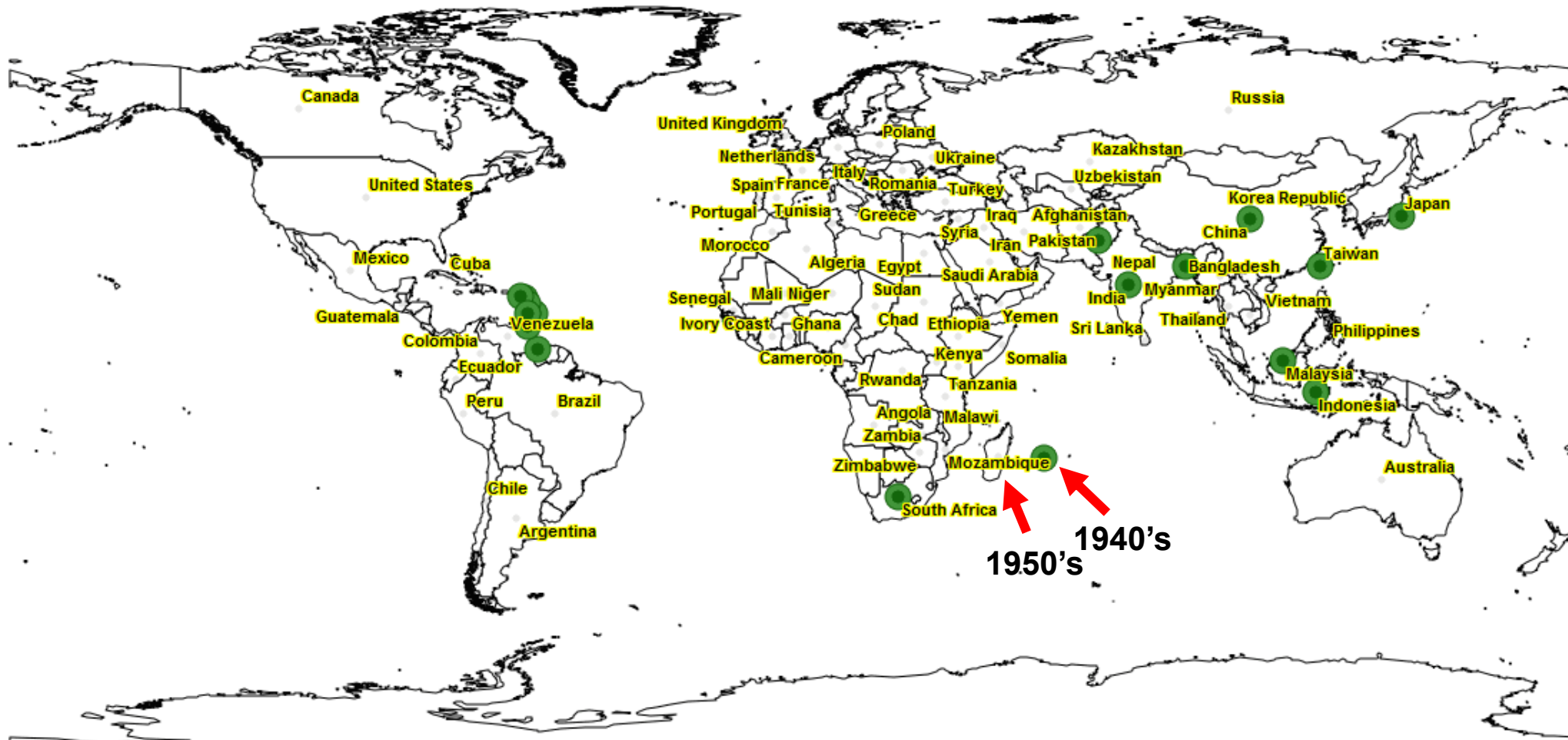
Sugarcane Thrips World Distribution

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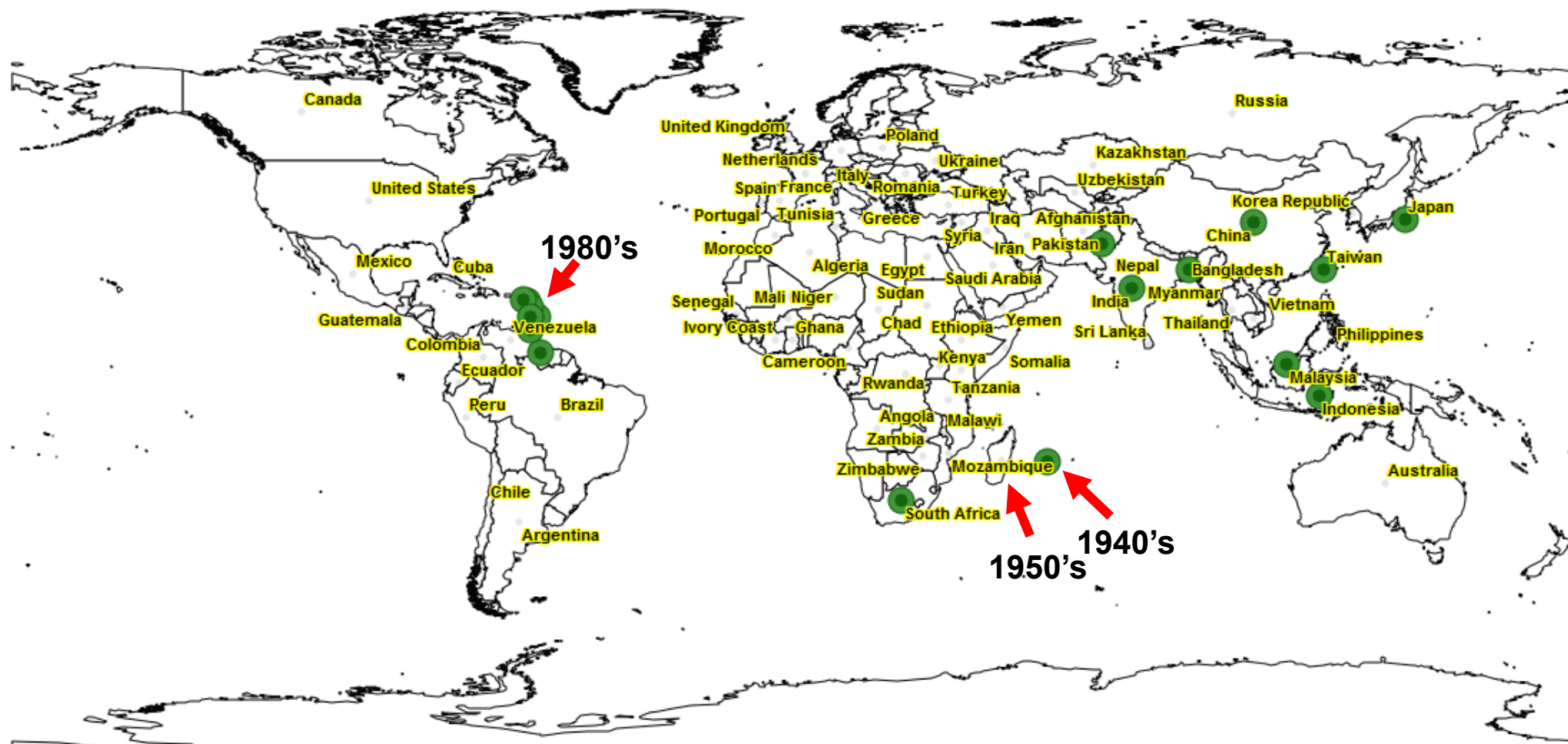
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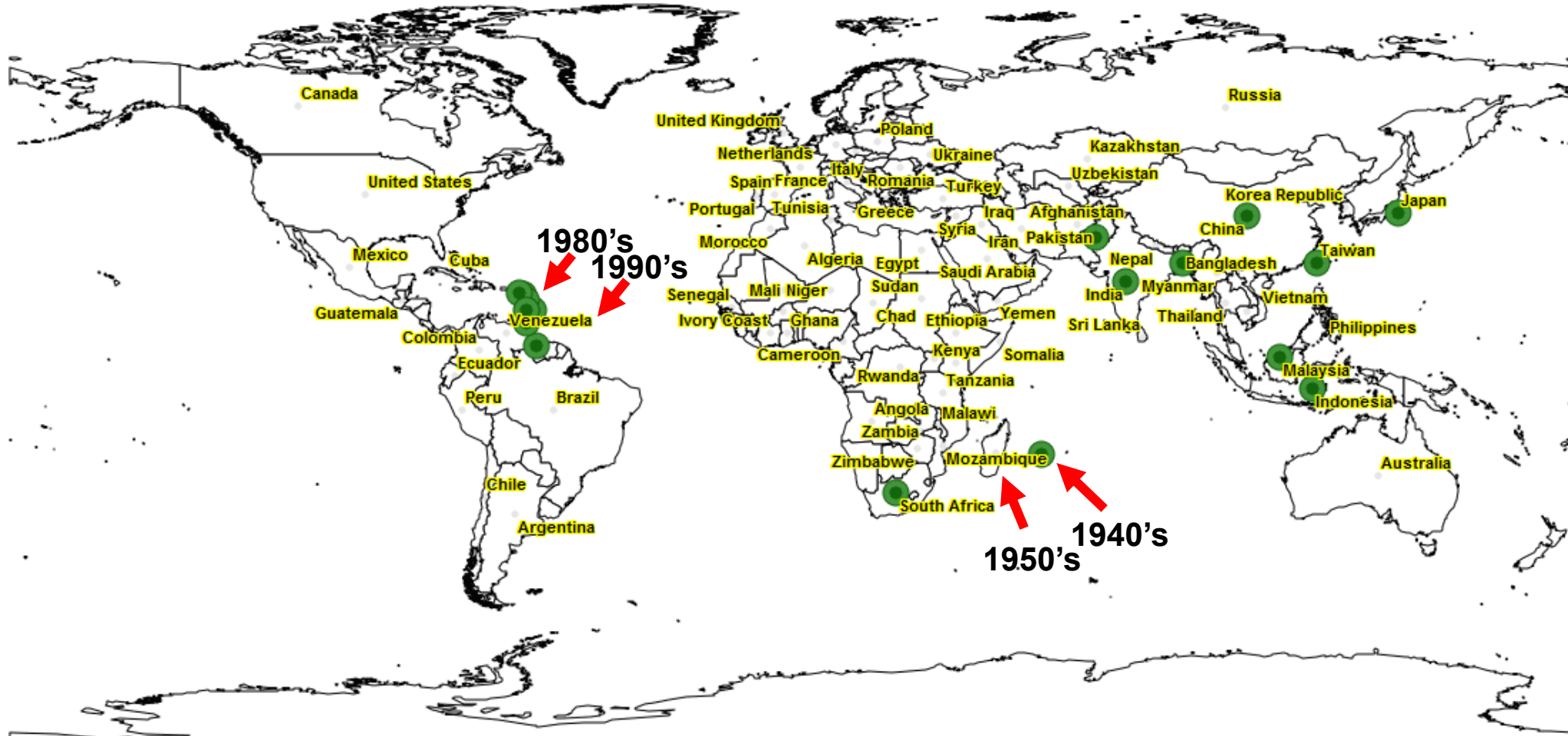
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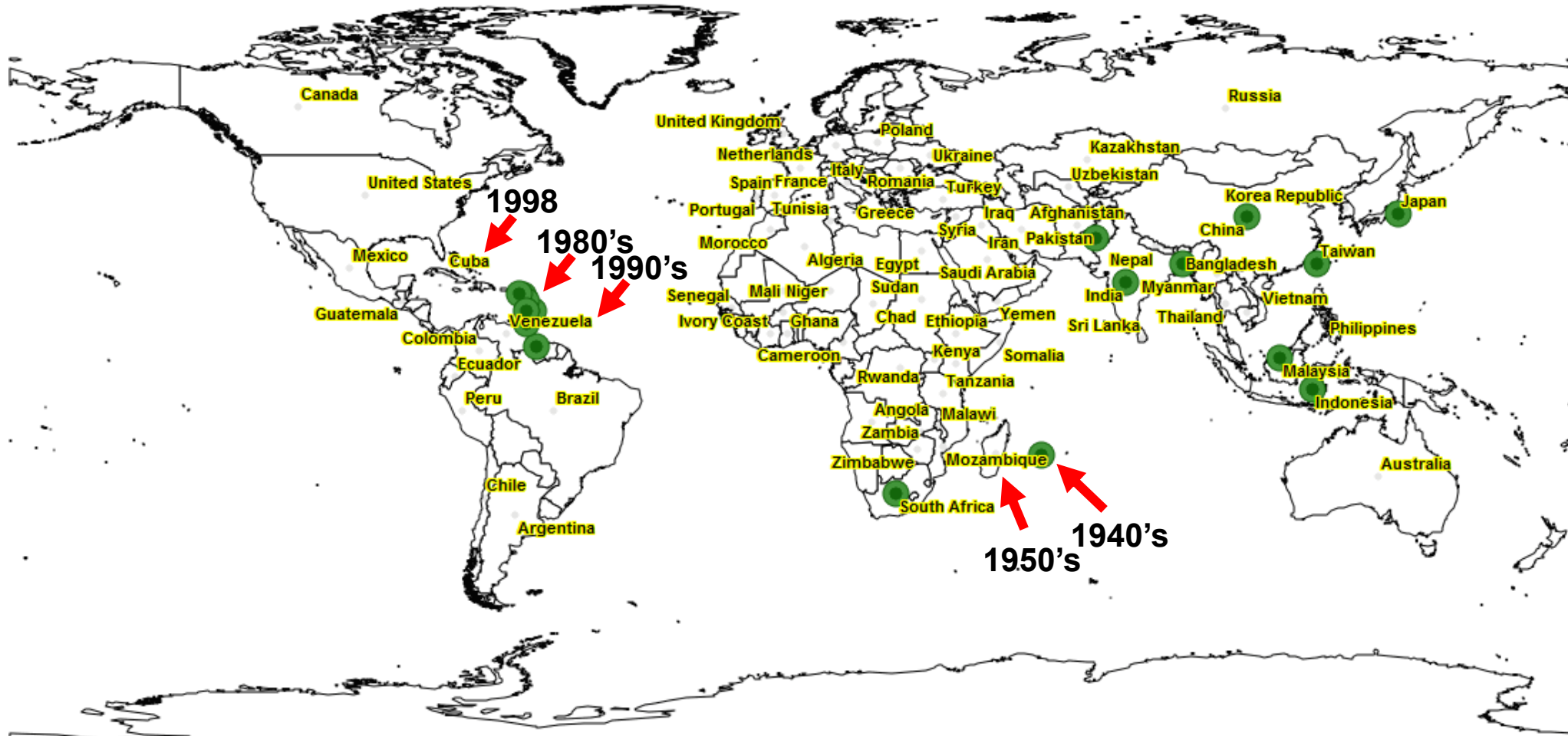
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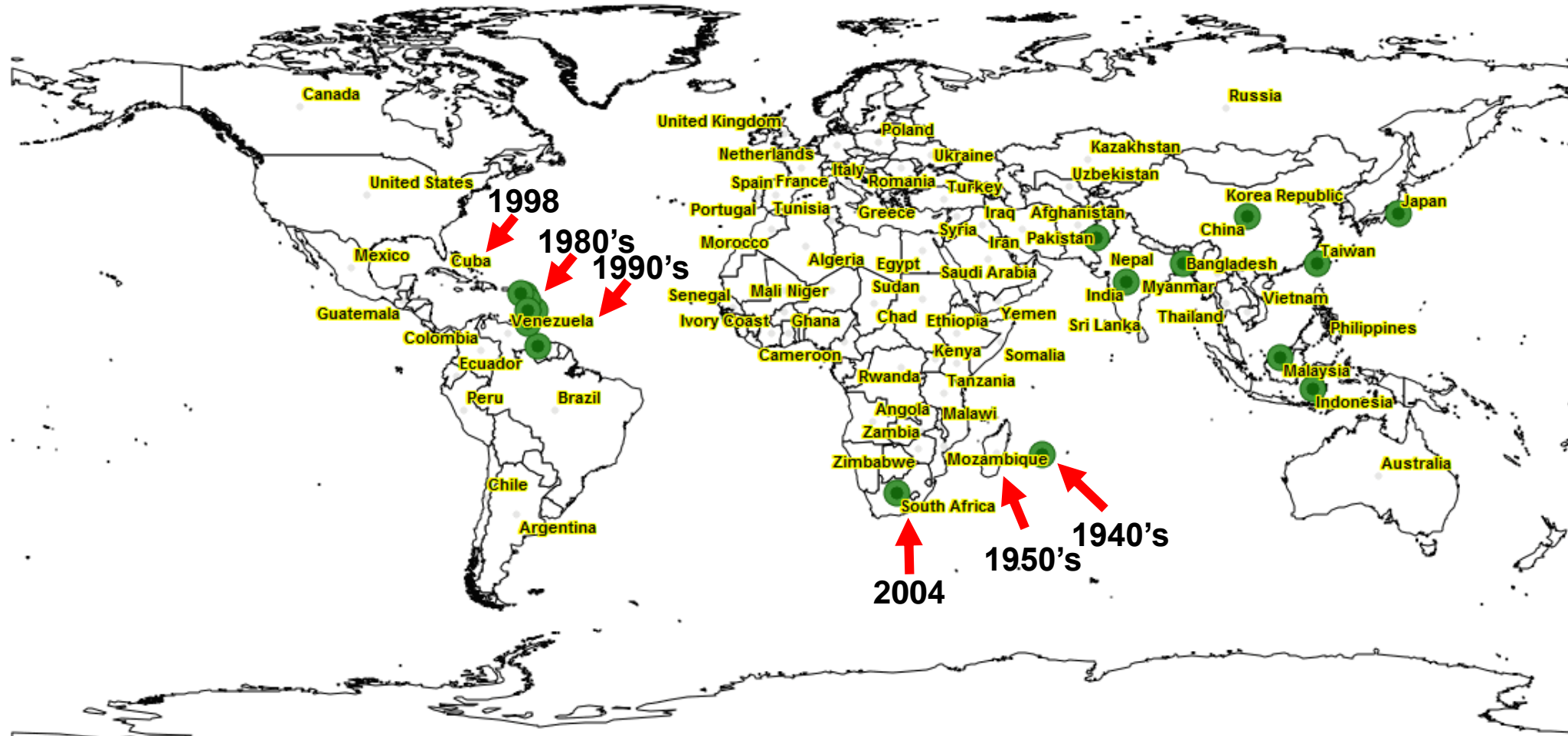
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Sugarcane Thrips Damage

- **Damage directly through feeding and oviposition (up to 80 eggs/female)**

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- Leaves have dry, rolled tips; brown margins; yellowish streaking



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Sugarcane Thrips Damage

- **Younger plants more affected**
- **Severity yield loss varies according to localities and cultivars**
- **Some cultivars more susceptible to damage, depending on weather conditions**
- **Outbreaks in South Africa, India and Cuba associated with drought**
- **Cuba, largest populations (up to 113 individuals/spindle) recorded in January and February, which coincides with dry season**
- **Barbados, some cultivars more susceptible under rainy condition**

Sugarcane Thrips Damage

- **Yield losses insignificant in Venezuela, Cuba, Trinidad and Mauritius**
- **China, losses estimated at around 15%**
- **South Africa losses estimated at nearly 27%**

Sugarcane Thrips Control

- **Where possible, shift planting time so that young plants are not available during dry season**
- **Natural enemies not explored in systematic way, although several beetles and true bugs are predacious on the thrips**
- **Chemical control....., although how effective this is in long terms remains unclear.**

Sugarcane Thrips Monitoring

- **Sticky traps set above sugarcane canopy; presence of few thrips leads to....**
- **Direct examination of leaf spindle, and curled leaves**
- **Following work done in Cuba, 22 thrips/spindle is threshold for onset of severe damage**

Sugarcane Thrips Distribution in Florida

- We do not know....

